

ABSTRACT

LASER JOINING METHOD AND A DEVICE FOR JOINING DIFFERENT
WORKPIECES MADE OF PLASTIC OR JOINING PLASTIC TO OTHER
MATERIALS

A method and a device for laser joining of plastics or for joining plastics to other materials, which are brought into contact with pressure, with the workpiece closest to the laser beam source being largely transparent for the laser beam, and the second workpiece being as absorbent as possible. By producing a laser beam shaped in the form of a line on the contact surface between the workpieces and by a relative movement of the laser beam relative to the workpieces, designed according to the desired joint seam structure, the workpieces are bonded together accurately only in the desired joining areas. This permits a highly accurate bonding with the smallest possible joint seam distances, so that even parts for micro-systems engineering can also be produced with a short cycle time.

Figure 1